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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,227	07/11/2001	Roger D. Hersch		7585
7590	04/04/2005		EXAMINER	
Prof. Roger D. Hersch EPFL - DI/LSP - INF Ecublens CH-1015 Lausanne, SWITZERLAND			ROSARIO, DENNIS	
			ART UNIT	PAPER NUMBER
			2621	

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/902,227	HERSCH ET AL.	
	Examiner Dennis Rosario	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 09 August 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-10 and 12-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4, 10, 14, 15 and 19-23 is/are rejected.
- 7) Claim(s) 5-9, 12, 13, 16-18 and 24-43 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 11 July 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

**DETAILED ACTION**

***Response to Amendment***

1. The amendment was received on August 9, 2004. Claims 1-10,12-43 are pending.

***Specification***

2. The previous objection to the specification is withdrawn based on the amendment on page 2.
3. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Page 1, fourth paragraph has an embedded hyperlink that ought to be deleted.

***Response to Arguments***

4. Applicant's arguments, see amendment page 2, paragraph 3, filed 08/09/2004, with respect to the rejection(s) of claim(s) 1 and 2 under van Beek (US Patent 6,047,088) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Rice (US Patent 5,325,480 A).

Applicant's arguments, see amendment, pages 2 and 3, paragraph 4, filed 08/09/2004, with respect to claims 24 and 31 have been fully considered and are persuasive. The rejection of claims 24 and 31 has been withdrawn.

Art Unit: 2621

5. Applicant's arguments, see amendment, page 3, "**Rejection of claim 20**", filed 08/09/2005, with respect to the rejection(s) of claim(s) 20 under the combination of van Beek (US Patent 6,047,088 and Judice (US Patent 3,937,878) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Rice (US Patent 5,325,480 A).

6. Applicant's arguments, see amendment, page 3, paragraph 9, filed 08/09/2005, with respect to the combination of Wang (US Patent 6,389,075) and Judice have been fully considered and are persuasive. The rejection of claims 34,36,39 and 41 has been withdrawn.

### ***Claim Objections***

7. The following quotations of 37 CFR § 1.75(a) is the basis of objection:

(a) The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

8. Claims 1, 2,14,20,24,31,36,39 and 41 are objected to under 37 CFR § 1.75(a) as failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention or discovery.

Claim 2, line 1:"the shape" has no antecedent basis and ought to be amended to "a shape".

Claims 1,14,20,24, 31, 34, 36, 39 and 41 have the word “visual motive” in the respective amended portions. According to paragraph/section 4, line 5 the “visual motive” is “ ‘a text, a logo, a symbol, an ornament’”. Therefore, the “visual motive” in claims 1,14,20,24,31,34,36,39 and 41 is extraneous and ought to be deleted since it is already a text, a logo, a symbol, and an ornament. If there is a distinction of the visual motive from a text, a logo, and a symbol, please indicate where in the specification. Note that the visual motive is pending; since Judice does disclose a visual motif as a series of blocks that portray motion by turning on and off blocks.

A suggestion to amend claims 1,14,20,24,31,34,36,39 and 41 of “where the microstructure represents an element selected from the set of text, logo, symbol and visual motive” to “where the microstructure represents **a visual motive element selected from the set of text, logo and symbol**”.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-4,10,14,15,19 and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Rice (US Patent 5,325,480 A).

Regarding claim 1, Rice discloses a method for creating a target image with an animated microstructure (fig. 2,numerals 30,32,22,34,36 and 28 are microstructures that “create...animation” in col. 1, line 54), where the target image is made of a succession of target image instances which differ from each other by an embedded microstructure which evolves over time, the method comprising the steps of:

- (a) defining an original image (Fig. 3A,num. 38 in col. 3, line 60 is defined as a “static scene” in col. 3, line 64);
- (b) defining how the embedded microstructure (fig. 2, numerals 30,32,22,34,36 and 28 is a microstructure that is embedded in the image of fig. 3A,num. 38.) evolves (Fig. 2, numerals 30,32,22,34,36 and 28 is the microstructure that increases in size.) over the succession (Fig. 3A, numerals 18,20,22,24 and 26 contains a succession of the microstructures or increasing circles.) of target image instances (Fig. 3A,numerals 18,20,22,24 and 26 are target image instances as shown in fig. 4.); and

(c) rendering from the original image (Fig. 3A,num. 38 in col. 3, line 60 is defined as a "static scene" in col. 3, line 64) a succession (Fig. 3A, numerals 18,20,22,24 and 26 contains a succession of the microstructures or increasing circles.) of target image instances (Fig. 3A,numerals 18,20,22,24 and 26 are target image instances as shown in fig. 4.) comprising (Fig 3A,num. 38 comprises the microstructure 18 that is embedded in the image of fig. 3A,num. 38.) the evolving (Fig. 2, numerals 30,32,22,34,36 and 28 is the microstructure that increases in size.) embedded microstructure (fig. 2, numerals 30,32,22,34,36 and 28 is a microstructure that is embedded in the image of fig. 3A,num. 38.),

(d) where the microstructure (fig. 2, numerals 30,32,22,34,36 and 28 is a microstructure that is embedded in the image of fig. 3A,num. 38.) represents an element selected from the set of text ("the letter Q" in col. 3, line 28 corresponds to text.), logo, symbol ("a polygon" in col. 3, line 27 is a symbol.) and visual motive ("shapes which pertain to the dynamic image sought to be generated" in col. 3, lines 24,25).

Regarding claim 2, Rice discloses the method of claim 1, where [the] a shape (A circle as shown in fig. 2.) of the animated microstructure (fig. 2,numerals 30,32,22,34,36 and 28 are microstructures that "create...animation" in col. 1, line 54) is made more flexible (via "drift components" from col. 6, line 68 to col. 7, line 2.) by defining an additional microstructure warping step (The drift components step is shown in a program shown in col. 6, line 40 and 41 is an additional microstructure warping step.).

Regarding claim 3, Rice discloses the method of claim 1, where only a part (A path arrow of fig. 5A, num. 40) of the original image (Fig. 3A,num. 38 in col. 3, line 60 is defined as a "static scene" in col. 3, line 64 and is shown again in fig. 5A, num. 42.) is rendered with an animated microstructure (Fig. 5A,num. 40 is an animated microstructure that moves along the path as shown by an arrow or part of the original image of fig. 5A, num. 42.), that part (The path as shown by an arrow of fig. 5A.) being specified (As shown by a series of numbers in fig. 5B.) during an additional mask definition step (The series of numbers in fig. 5B represent a movement of a microstructure that "cover[s]" in col. 5, line 21,23 or masks the "image" in col. 5, line 21.).

Regarding claim 4, Rice discloses the method of claim 1, where an additional step enables to specify a set of basic colors ("assigned...colors" in col. 4, lines 32,33.) for rendering (Figs. 3B and 4 are renderings of circles.) target image instances ("graphical components" in col. 4, line 32 as shown in fig. 2, numerals 30 and 32.).

Regarding claim 10, Rice discloses the method of claim 1, where the evolution (Fig. 2, numerals 30,32,22,34,36 and 28 is the microstructure that increases in size.) of the microstructure (fig. 2, numerals 30,32,22,34,36 and 28 is a microstructure that is embedded in the image of fig. 3A,num. 38.) over time (Fig. 5B shows numbers that represent time.) comprises a blending (fig. 4 shows a circle or “new graphical component” in col. 7, line 10 or microstructure that comprises a “blend” in col. 7, line 10 operation for blending into the “surrounding map” in col. 7, line 11 or image. Thus a new graphical component introduced into an image can blend with the features of the surrounding image such as other previous graphical components as shown in fig. 4.) between two microstructure shapes (Two circles of fig. 4 are blended together using the blending operation.).

Regarding claim 14, Rice discloses a method for creating a target image with a microstructure evolving in successive image instances, comprising initialization and image rendering steps, where the initialization steps comprise:

- (a) selecting color information (“assigned...colors” in col. 4, lines 32,33.) necessary for rendering (Figs. 3A, 3B and 4 are renderings of circles.) the target image (“graphical components” in col. 4, line 32 as shown as circles in fig. 2, numerals 30 and 32.);
- (b) selecting a microstructure (Rice states, “...the graphical component may take one of a variety of shapes...(col. 3, lines 23,24).”);

Art Unit: 2621

(c) selecting of a time-dependent animation transformation (Figures 3A,5A,6 and 7B shows time-dependent animation transformations that can be selected. ) allowing the microstructure to evolve over time “time dependent motion [can be added] to graphical component sequences [of figures 5A,6 and 7B]... (col. 2, lines 6-8). ”);

(d) where the rendering steps (Figs. 3A, 3B and 4 are renderings of circles.) comprise an update (fig. 3A,num. 20 is an update with respect to fig. 3A,num. 18) of the current instance (Fig. 3A,num. 18 is the current instance.) of the animation transformation (Figures 3A,5A,6 and 7B shows time-dependent animation transformations that can be selected. ) when a new instance (Fig. 3A, num. 18 is a new instance.) of the target image (Fig. 3A,num. 18 is a new instance of “graphical components” in col. 4, line 32 as shown as circles in fig. 2, numerals 30 and 32.) is to be rendered (As shown in fig. 4 where circles our shown.) and where the microstructure (Rice states, “...the graphical component may take one of a variety of shapes... (col. 3, lines 23,24).”) represents an element selected from the set of text (“alphanumeric character” in col. 3, line 28.), logo, symbol (“a polygon” in col. 3, line 27) and visual motive (Rice states, “graphical components may also be employed to generate the dynamically altering image (col. 3, lines 30-33).”).

Claim 15 is rejected the same as claim 3. Thus, argument similar to that presented above for claim 3 is equally applicable to claim 15.

Claim 19 is rejected the same as claim 2. Thus, argument similar to that presented above for claim 2 is equally applicable to claim 19.

Regarding claim 20, Rice discloses a method for creating a target image with an embedded microstructure evolving in successive image instances comprising the steps of:

(a) defining

a1) an original image (fig. 3A, num. 38 is a "texture map" or original image that represents a "static scene" in col. 3, line 64.),  
a2) an original microstructure (Fig. 5A,num. 40),  
a3) color information ("assigned...colors" in col. 4, lines 32,33) used for rendering (As shown in a series of images in fig. 5A, num. 42.) the target image ("graphical components" in col. 4, line 32 as shown in fig.5A, numeral 40.) and  
a4) a time-dependent animation transformation (Col. 6, line 20 show a function "v" that is a "non-linear combination" in col. 5, line 38 or animation transform that includes a "time dependent motion" in col. 2, lines 7,8 and col. 7, lines 15,16);

(b) traversing a target image (x, y) pixel by pixel and row by row (Rice states,"...suitable positions could be used for applying the graphical components...(col. 4, lines 3-6)."),

(b1) determining

(b11) corresponding positions (Rice states,"...suitable positions could be used for applying the graphical components to the texture map...(col. 4, lines 3-6)." in the original image (x', y') (fig. 3A, num. 38 is a "texture map" or original image that represents a "static scene" in col. 3, line 64.) and,

(b12) according to the time-dependent animation transformation (Col. 6, line 20 show a function "v" that is a "non-linear combination" in col. 5, line 38 or animation transform that includes a "time dependent motion" in col. 2, lines 7,8 and col. 7, lines 15,16), corresponding positions (Fig. 5A shows the microstructure 40 transformed on the far right side using function "v" that corresponds to the original microstructure position as shown in fig. 5A, num. 40 which is on the far left side.) in the original microstructure ( $x'', y''$ ) (Fig. 5A,num. 40);

(c) obtaining

(c1) (Fig. 5A, second triangle-like object from the left obtains an object labeled as "A".) from the original image position ( $x', y'$ ) (Rice states, "... suitable positions could be used for applying the graphical components to the texture map...(col. 4, lines 3-6)." Thus, a position of the original image as shown in fig. 5A, as a head point of an arrow can be determined using a position of the graphical components.) the color Cr (Thus, a position of the original image as shown in Fig. 5A, as the head point of the arrow can be determined using a position of the graphical components including "assigned...colors" in col. 4, lines 32,33 of the "graphical components" in col. 4, line 32.) to be reproduced (The assigned color of the graphical component is reproduced in the second triangle-like object from the left.), and

(c2) (Fig. 5A, second triangle-like object from the left obtains an object labeled as "A".) from the original microstructure position (x", y") (Fig. 5A, second triangle-like object from the left obtains an object labeled as "A" which is from the original microstructure position as shown in fig. 5A, num. 40 which is on the far left side.) rendering information (Fig. 5A, second triangle-like object from the left obtains an object labeled as "A" which is from the original microstructure position as shown in fig. 5A, num. 40 which is on the far left side and obtains rendering information as represented by an arrow in fig. 5A. Note that the arrow represents the direction of rendering.);

(d) rendering the target image ("graphical components" in col. 4, line 32 as shown in fig.5A, numeral 40.) by making use of the rendering information (The arrow or rendering information represents the direction of rendering the label "A".);

(e) where the microstructure (Fig. 5A,num. 40) represents an element selected from the set of text ("alphanumeric character" in col. 3, line 28.), logo, symbol ("a polygon" in col. 3, line 27) and visual motive (Rice states, "graphical components may also be employed to generate the dynami-cally altering image (col. 3, lines 30-33).").

Claim 21 is rejected the same as claim 3. Thus, argument similar to that presented above for claim 3 is equally applicable to claim 21.

Regarding claim 22, Rice discloses the method of claim 21, where the mask values (The series of numbers or values in fig. 5B represent a movement from a position of a microstructure that “cover[s]” in col. 5, line 21,23 or masks the “image” in col. 5, line 21.) specify microstructure appearance (The series of numbers or values specify how the microstructure appears.) properties such as visibility (“transparency or additively” in col. 5, line 19), position and spatial extension (“complete coverage” in col. 5, line 23).

Claim 23 is rejected the same as claim 2. Thus, argument similar to that presented above for claim 2 is equally applicable to claim 23.

***Allowable Subject Matter***

11. Claims 24,31,34,36,39 and 41 objected to, but would be allowable if rewritten in independent form pending the claim objection. Thus, the respective dependent claims 25-30,32,33,35,37,38,40,42 and 43 would be allowed.
12. Claims 5-9,12,13 and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
13. The following is a statement of reasons for the indication of allowable subject matter:

Claim 5 is allowable because the prior art, Rice (US Patent 5,325,480 A), does not suggest the limitation of dithering for a proper combination of references.

The closest prior art Judice (US Patent 3,937,878) teaches a method of dithering as mentioned in claim 5, but does not teach or suggest the limitation of claim 1 of where

the microstructure as stated in claim 5 represents an element selected from the set of text, logo, symbol and visual motive. Instead, Judice's microstructure represents a fixed structure. Thus, to combine references would indicate hindsight.

Claims 7 and 12 are allowable for the same reasons as claim 5.

Claim 16 is allowable because the prior art, Rice, does not suggest a weight for using the mask and does not suggest that the masking operation can be modified.

The closest prior art, Tresser (US Patent 6,853,469 B1) discloses a masking operation (Fig. 1, num. 12: DITHER (THRESOLHD) MASK(S) APPLIED) with weight for printing and not for animation. Thus, to combine references would indicate hindsight.

Claim 24 is allowable because the prior art, Rice, does not suggest the limitation of "where from far away mainly the image is visible and from nearby mainly the evolving microstructure is visible".

The closest prior art Judice (US Patent 3,937,878) teaches the limitation as shown in fig. 4 where close up the image looks like blocks and from far away the image looks like a face; however, Judice does not suggest modifying the blocks to represent an element selected from the set of text, logo, symbol and visual motive. Note that visual motive is pending; since Judice does disclose a visual motif as a series of blocks that portray motion.

The benefit of the above allowable limitations enables designers to interactively create appealing images with animated microstructures.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zellweger et al. (US Patent 6,230,170 B1) is pertinent as teaching a method of animating text as shown in fig. 10 using a structure 134 shown in fig. 9.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is 703-305-5431. The examiner can normally be reached on 6-3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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